AIWA

S/H Code No. 87-004
DATE OF ISSUE 3/1987-I

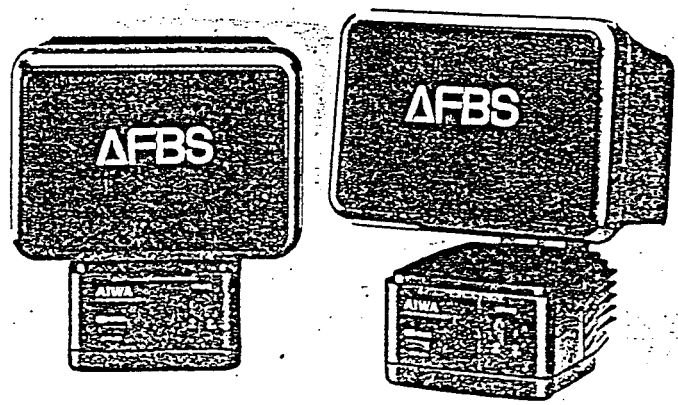
732

SERVICE MANUAL

MODEL NO. AFB-7

■ AFBS SPEAKER SYSTEM

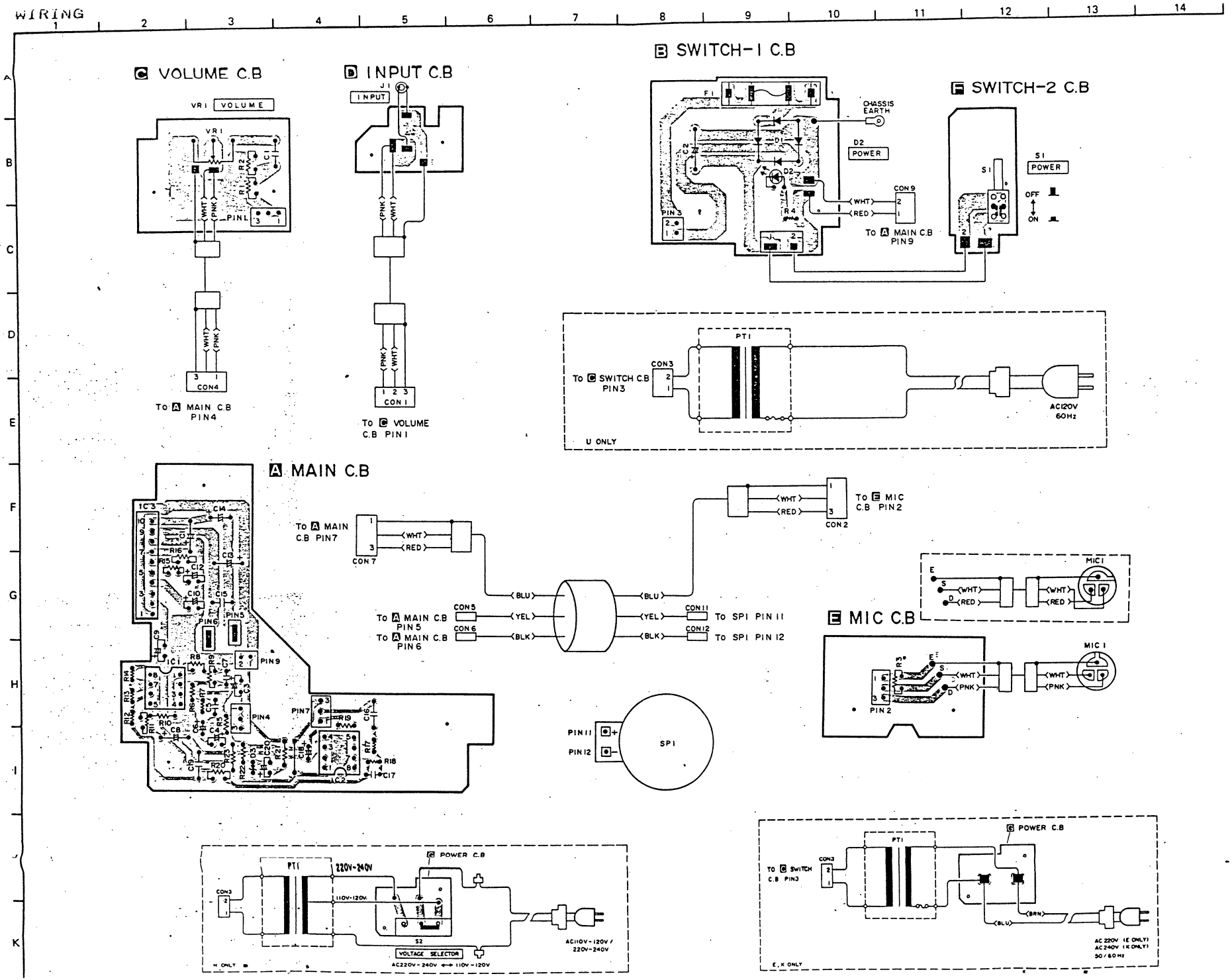
■ TYPE. HB, UB, EB, KB



SPECIFICATIONS

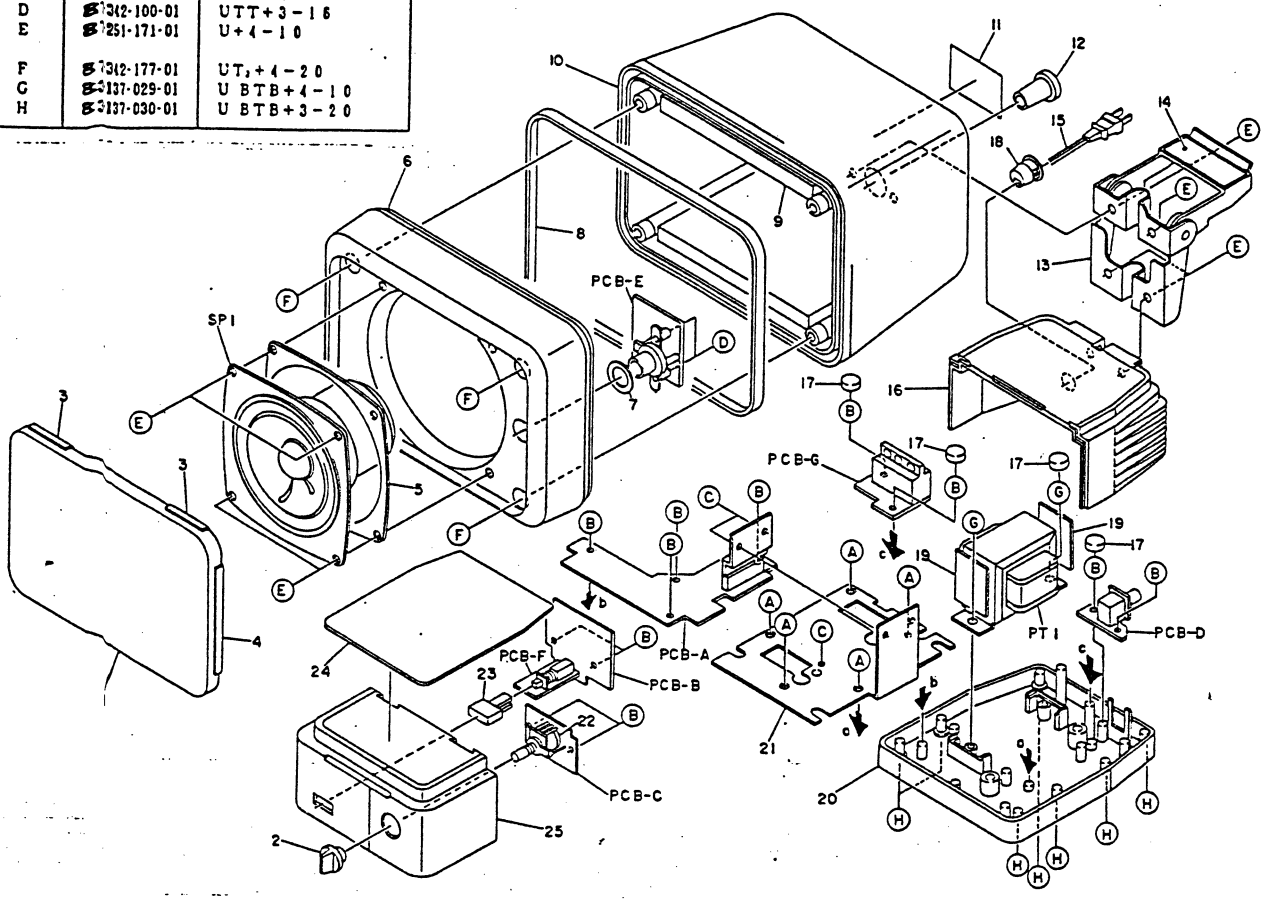
Speaker type:	Full-range enclosed type, AFBS method
Speaker unit:	100 mm cone type (magnetic shield type)
Frequency response:	65 to 20,000 Hz (10 dB demped)
Maximum output sound pressure level:	96 dB/m (at 1 kHz)
Rated input:	AFB-7H, E, K 0.65V (PEAK, 1 kHz) AFB-7U 0.65V (1 kHz)
Rated output:	6W 4 ohm load, 1 kHz, 10% T.H.D. FTC Rule 5 watts per channel, Min. RMS at 4 ohms, from 100 Hz to 20 kHz, with no more than 20% Total Harmonic Distortion.
Input terminals:	1 x pin-type input jack
Input impedance:	50k ohms or greater (1 kHz)
Power source:	AFB-7H AC110-120V/220-240 switchable, 50/60 Hz AFB-7E AC220V, 50/60 Hz AFB-7K AC240V, 50/60 Hz AFB-7U AC120V, 60 Hz
Power consumption:	AFB-7H 11W AFB-7E 13W AFB-7K 15W AFB-7U ~ 7W
Dimensions:	170(W) x 185(H) x 161(D) mm
Weight:	Approx. 2 kg

• Design and specifications are subject to change without notice.


C VOLUME C.B
VR1 VOLUME
WHT
PNK
CON4
To A MAIN C.B PIN4
D INPUT C.B
J1
INPUT
CON1
To C VOLUME C.B PIN1
B SWITCH-1 C.B
F1
CHASSIS EARTH
D1
D2
POWER
CON9
WHT
RED
R4
PIN3
To A MAIN C.B PIN9
F SWITCH-2 C.B
S1
POWER
OFF
ON
To C SWITCH C.B PIN3
CON3
PT1
AC120V 60Hz
U ONLY
A MAIN C.B
IC3
IC1
IC2
PIN4
PIN5
PIN6
PIN7
PIN9
To A MAIN C.B PIN7
CON7
To E MIC C.B PIN2
CON2
To A MAIN C.B PIN5
To A MAIN C.B PIN6
CON5
CON6
BLU
YEL
BLK
CON11
CON12
To SPI PIN 11
To SPI PIN 12
E MIC C.B
MIC1
PIN 2
SPI
PIN11
PIN12
G POWER C.B
PT1
220V-240V
110V-120V
S2
VOLTAGE SELECTOR
AC220V-240V ⟷ 110V-120V
AC110V-120V / 220V-240V
H ONLY
To C SWITCH C.B PIN3
BRN
AC 220V (E ONLY)
AC240V (K ONLY)
50/60Hz
E, K ONLY

EXPLODED VIEW

Ref. No.	Part No.	Description
A	S3321-094-01	QTT+3-6
B	S3341-096-01	UTT+3-10
C	S3251-092-01	U+3-4
D	S3342-100-01	UTT+3-16
E	S3251-171-01	U+4-10
F	S3342-177-01	UT,+4-20
G	S3137-029-01	U BTB+4-10
H	S3137-030-01	U BTB+3-20



MECHANICAL PARTS LIST

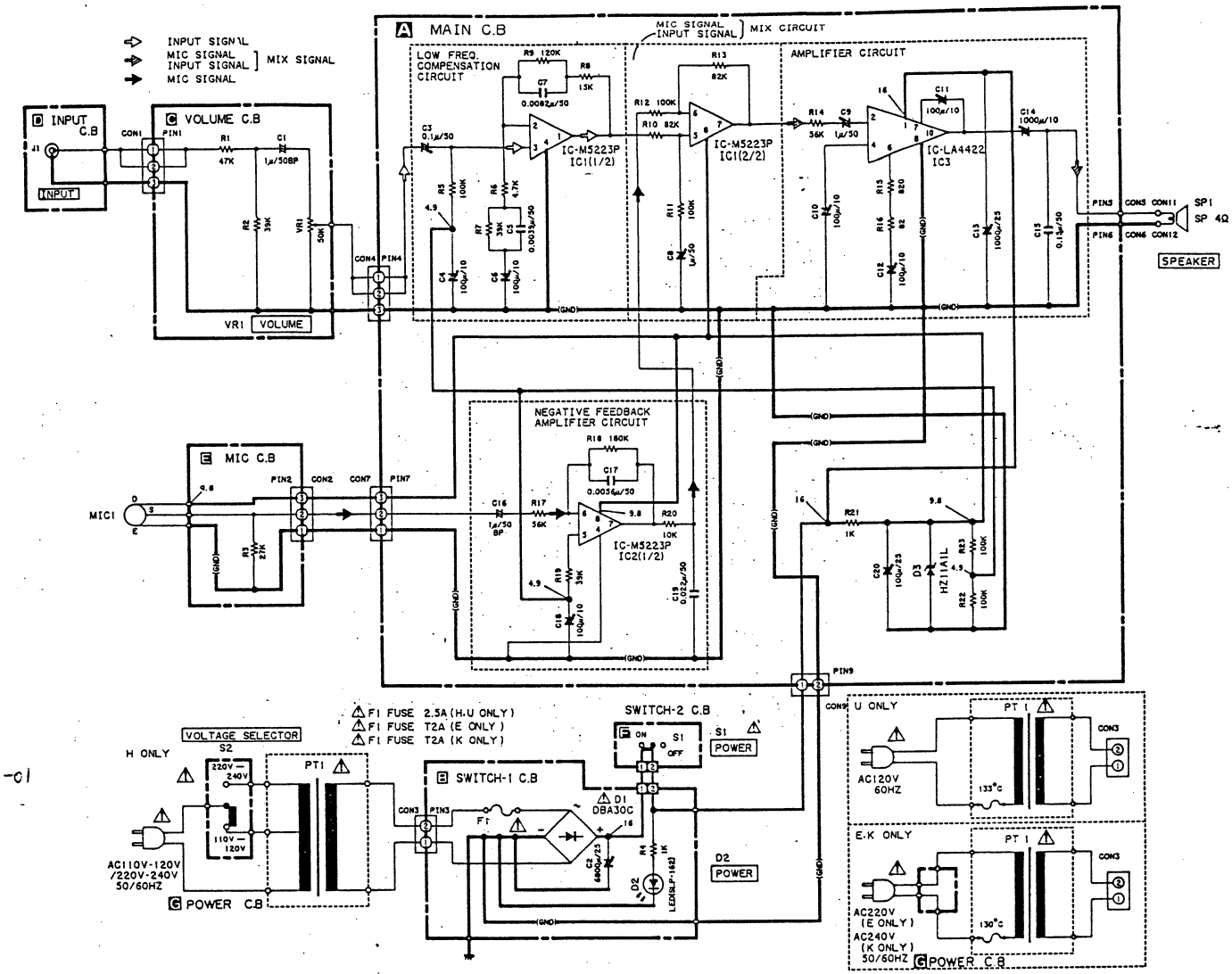
PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY	カンリ NO
	1	*83-137-107	PANCHING NET ASSY	*	1	
	2	83-009-020	KNOB,VOLUME		1	
	3	*83-137-026	SPACER,PANCHING (30 mm)	*	4	
	4	*83-137-025	SPACER,PANCHING (60 mm)	*	2	
	5	---	UNIT PACKING		1	
	6	---	SPEAKER BOX FRONT ASSY		1	
	7	---	MIC PACKING		1	
	8	---	RUBBER RING		1	
	9	---	SOUND ABSORPTION MATERIAL		1	
	10	---	SPEAKER BOX,REAR		1	
	11	---	NAME PLATE,SPEC.		1	
	12	*83-137-010	RUBBER BUSHING	*	1	
	13	83-137-011	JOINT HINGE	*	1	
	14	---	SHEET,JOINT HINGE		1	
	15	*87-034-732	AC CORD ASSY (H ONLY)		1	
	15	*87-034-578	AC CORD (U ONLY)		1	
	15	*87-034-736	AC CORD (E ONLY)		1	
	15	*87-034-734	AC CORD (K ONLY)		1	
	16	---	ADAPTER CASE,REAR		1	
	17	*82-752-206	NUT COVER (H,E,K ONLY)		2	H/2 E,K/2
	18	*87-085-184	AC CORD BUSHING (H,U ONLY)		1	
	18	*87-085-185	AC CORD BUSHING (E,K ONLY)		1	
	19	---	INSULATION SHEET		1	H,E,K/2 U/1
	20	*87-037-017	CASE,CIRCUIT BOARD (H,E,K ONLY)	*	1	
	20	*87-037-125	CASE,CIRCUIT BOARD (U ONLY)	*	1	
	21	---	PLATE,EARTH		1	
	22	---	SPACER,VOLUME		1	
	23	*83-137-020	KNOB,SWITCH		1	
	24	---	SHEET ADAPTER		1	
	25	---	ADAPTER CASE,FRONT		1	

ELECTRICAL MAIN PARTS LIST

Ref. No.	Part No.	Description
=== IC ===		
	83-099-626	IC,M5223P
	83-137-626	IC,LA4422
=== MAIN CIRCUIT BOARD SECTION ===		
PCB-A	83-137-655	MAIN CIRCUIT BOARD
C3	* 87-010-067	CAP,ELECT 0.1-50
C4	* 87-010-263	CAP,ELECT 100-10
C6	* 87-010-263	CAP,ELECT 100-10
C8	* 87-010-401	CAP,ELECT 1-50
C9	* 87-010-401	CAP,ELECT 1-50
C10	* 87-010-263	CAP,ELECT 100-10
C11	* 87-010-263	CAP,ELECT 100-10
C12	* 87-010-263	CAP,ELECT 100-10
C13	* 87-010-388	CAP,ELECT 1000-25
C14	* 87-010-236	CAP,ELECT 1000-10
C16	* 87-010-132	CAP,ELECT 1-50
C18	* 87-010-263	CAP,ELECT 100-10
C20	* 87-010-384	CAP,ELECT 100-25
D3	87-027-417	DIODE,ZENER HZ11A1L
=== SWITCH-1 CIRCUIT BOARD SECTION ===		
PCB-B	83-137-665	SWITCH-1 CIRCUIT BOARD
C2	* 83-137-623	CAP,ELECT 6800-25
⚠D1	87-020-285	DIODE DBA30C
D2	83-137-614	LED SLP-162 (POWER)
⚠F1	87-035-254	FUSE 2.5A (H ONLY)
⚠F1	87-035-301	FUSE 2.5A (U ONLY)
⚠F1	87-035-365	FUSE T2A (E,K ONLY)
=== VOLUME CIRCUIT BOARD SECTION ===		
PCB-C	83-137-662	VOLUME CIRCUIT BOARD
C1	* 87-010-132	CAP,ELECT 1-50
VR1	83-137-628	VOLUME 50K A (VOLUME)
=== INPUT CIRCUIT BOARD SECTION ===		
PCB-D	83-137-660	INPUT CIRCUIT BOARD
J1	87-049-448	PIN JACK 1P (INPUT)
=== MIC CIRCUIT BOARD SECTION ===		
PCB-E	83-137-657	MIC CIRCUIT BOARD
=== SWITCH-2 CIRCUIT BOARD SECTION ===		
PCB-F	83-137-664	SWITCH-2 CIRCUIT BOARD
⚠S1	83-137-671	PUSH SWITCH (POWER) (U ONLY)
⚠S1	83-137-629	PUSH SWITCH (POWER) (H,E,K ONLY)
=== POWER CIRCUIT BOARD SECTION ===		
⚠PCB-G	83-137-651	POWER CIRCUIT BOARD (H ONLY)
⚠PCB-G	83-137-712	POWER CIRCUIT BOARD (E,K ONLY)
⚠S2	* 87-031-780	SLIDE SWITCH (VOLTAGE SELECTOR) (H ONLY)
⚠	* 82-304-743	1P TERMINAL (E,K ONLY)
=== MISCELLANEOUS ===		
⚠	* 87-034-732	AC CORD H ASSY (H ONLY)
⚠	* 87-034-727	AC CORD U (U ONLY)
⚠	* 87-034-977	AC CORD E (E ONLY)
⚠	* 87-034-975	AC CORD K (K ONLY)
⚠	* 87-085-184	AC CORD BUSHING
⚠PT1	* 83-137-652	POWER TRANSFORMER (H ONLY)
⚠PT1	* 83-137-670	POWER TRANSFORMER U (U ONLY)
⚠PT1	* 83-137-710	POWER TRANSFORMER (E ONLY)
⚠PT1	* 83-137-730	POWER TRANSFORMER (K ONLY)
SP1	83-137-601	SPEAKER UNIT

ECH
83-137-636-01

SCHEMATIC DIAGRAM



■ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	1	*83-137-904	INSTRUCTION BOOKLET H	•	1
	2	*83-137-620	MINI PIN CORD	•	1
	3	*87-032-845	SIEMENS PLUG (H ONLY)		2
	4	*83-137-013	METAL FITTING	•	2
	5	*87-349-099	UT3-15		6